

## **REMARKS**

Reconsideration of the subject application in view of the present amendment is respectfully requested.

By the present amendment, Claims 1-14 have been cancelled. Claims 1-15 have been added.

Based on the foregoing amendments and the following remarks, the application is deemed to be in condition for allowance, and action to that end is respectfully requested.

### **I. Rejection of Claims Under 35 U.S.C. §112.**

The Examiner rejected claims 1-14 under 35 U.S.C. §112, second paragraph for being indefinite. As noted above, claims 1-14 have been canceled.

It is respectfully submitted that the new claims 15-28 comply with all of the requirements of 35 U.S.C. §112.

### **II. Rejection over the Prior Art.**

The Examiner rejected claims 1-14 under 35 U.S.C. §102(e) as being anticipated by Danssaert et al. U.S. Patent 6,054,263 (Danssaert). It

is respectfully submitted that claims 15-28 are patentable over Danssaert, claims 1-14 having been canceled.

Danssaert describes a method (for PCR amplification) of tempering a plurality of samples in a sequence of three steps, in each step to a specified temperature range. Only in one of the steps a gradient is applied, i.e., first groups of samples are brought to temperatures within the first temperature range assigned to the first step, which are the same within the groups and different between the groups. In the simple example of two-dimensional arrays this means: The temperature gradient is applied, e.g., in the direction of the row, the lines being first groups.

This, Danssaert produces a gradient only in on step.

The Danssaert method corresponds to that of the first step of claim 15. Danssaert does not effect, in a second step, one of:

(i) bringing, in an arbitrary selected second step of the sequence of steps, at least two samples of the least one in the first group, which belong to two different second groups, to temperatures within a second temperature range assigned to the arbitrary selected second step, which are the same within each of the second groups and different between the second groups; and

(ii) in case the reaction product is affected by the first and second steps with regard to different evaluation parameters, bringing at least two arbitrary samples, which belong to two different third groups, to temperatures within the second temperature range assigned to the arbitrary selected second step, which are the same within each of the third groups and are different between the third groups.

In the second alternative for the second step, when different parameters are evaluated, any groups (called third groups) can be used. It is to be noted that any group also can be the first groups, so that the same gradient as in the first step can be applied. This does not cause any problem because different parameters are evaluated and, therefore, the results of the amplification can be sorted out from first step and second step.

Thus, according to the present invention, as defined by claim 15, in a conventional three-step PCR, in addition to the first step (conventional), a second step for identical evaluation parameters, or a third step for different evaluation parameters can be used in which the third groups are any of the first groups or second groups. Such possibility does not exist in Danssaert.

In view of the above, it is respectfully submitted that the present invention as defined by claim 15 patentably defines over Danssaert and is, therefore, allowable.

Claims 16-24 depend on claim 15 and are allowable as being dependent on an allowable subject matter.

It is respectfully submitted that claims 25-28 are also patentable over Danssaert. Specifically, claim 25 recites bringing in an arbitrarily selected third step of the sequence of steps, at least two samples of at least one of the first groups and at least one of the second groups, which belong to different third groups, to temperatures within third temperature range assigned to the third step, which are the same within the third groups and different between the third groups. This is not disclosed in Danssaert.

### **CONCLUSION**

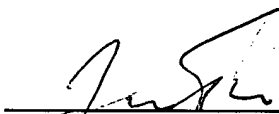
In view of the foregoing, it is respectfully submitted that the application is in condition for allowance, and allowance of the application is respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawing be further amended or corrected in

formal respects, in order to place in case in condition for final allowance, then it is respectfully requested that such amendment or correction be carried out by Examiner's amendment and the case passed issue.

Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

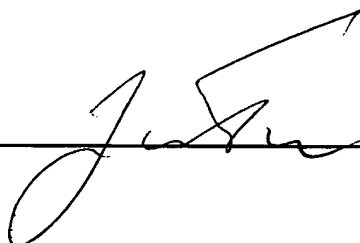


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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on December 21, 2004



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